Upward trends in the use of community mental health and social work services in the Netherlands between 1979 and 1995

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Upward trends in the use of community mental health and social work services in the Netherlands between 1979 and 1995: are particular sociodemographic groups responsible?

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Objective: We investigate 1) trends in use of community mental health care (CMHC) and community social work (CSW) by Dutch households in 1979–1995; 2) whether such trends can be explained by long-term relative changes in service use or in sizes of particular household categories.
Method: Data was derived from the Facilities Use Surveys, cross-sectional population studies recording Dutch household characteristics and service use since 1979. A simulation technique was used to explain trends in service use.
Results: Use of CMHC and CSW virtually doubled in recent decades. Such trends are not explained by increasing relative service utilization in particular household categories, and only marginally by shifts in the relative sizes of such categories. They are attributable to growing rates of utilization throughout society.
Conclusion: Trends in service use are explained by broad changes in help-seeking behaviour. Policymakers should act on these findings to narrow the persisting inequalities in service uptake.

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Key words: community mental health services; social work; epidemiological studies

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Introduction

There is an ongoing debate about trends in the use of community mental health care (CMHC) and community social work (CSW) (1). In the Netherlands, both types of services are publicly funded and free of charge. The activities of non-residential mental health care providers (regional CMHC institutes) include prevention programmes for mental health problems as well as psychotherapeutic and social psychiatric treatment (2). The activities of CSW agencies include psychosocial counselling and practical support to people with social problems. Client registry studies have concluded that the use of community care services rose sharply in the 1980s and stabilized from the early 1990s onwards (3). Little is known about the actual numbers of users and, assuming that utilization has indeed increased, about how to explain this rise. The debate on trends is hampered by the limitations of registry data. Nationwide community care registers count numbers of entries, and thereby double-count people who visit an institution more than once in a specified time frame, while psychiatric case registers do not extend to all community care contacts. The international literature gives few indications of possible explanations for an increasing use of community care services. A major reason for this is the lack of repeated cross-sectional survey data on service use in most countries.

Previous studies suggest two possible hypotheses to explain the increase in service use (4–10):

1) increased relative use by particular sociodemographic groups, and/or 2) increased relative sizes of particular sociodemographic groups that make use of the services. With regard to the first hypothesis, it is known that income inequalities widened between social groups in the Netherlands in the period 1977–1995 (11). As a consequence of the growing deprivation in low-income categories, these groups may have made increasing use of community care services in recent years. Moreover, people with higher education, who already made relatively greater use of CMHC than less-educated people (8–10), may have turned to this type of service even more in recent years. With regard to the second hypothesis, the relative sizes of several sociodemographic groups, some of which are known to make more use of CMHC and/or CSW, appear to have increased in recent years. These include divorced people, better-educated people and unemployed people (12).

Our article analyses data from the Facilities Use Surveys (FUSs) from the Dutch Social and Cultural Planning Office (SCP), a series of cross-sectional population studies conducted periodically since 1979. All studies use comparable research designs and are representative of the Dutch population. They assess service use at the level of households and, because a large set of questions is repeated in every study, they allow comparisons over time.

Aims of the study

To investigate: 1) What trends occurred in the prevalence rates of community care service use by households in the Netherlands from 1979 to 1995? 2) Can such trends be attributed to changes over time in the prevalence rates of service utilization by particular household categories, and/or to changes in their relative sizes (percentages in the sample). We hypothesize that an increase did occur in community care service use between 1979 and 1995, and that at least part of that rise can be clarified by either or both of the explanations above.

Material and methods

Sample

The FUSs periodically investigate the use of health, social and cultural facilities in the Netherlands. They are based on nationwide household samples and contain information on all household members. FUSs have been conducted every 4 years since 1979. The data used in the present article include all household members aged 16–74 years covered by the five FUSs held between 1979 and 1995. All these FUSs had comparable research designs. An average of more than 6000 households were interviewed each time, with responses varying from just over 40% in 1991, to around 60% in 1979, 1983 and 1987, up to 70% in 1995. The samples were representative of all Dutch households in their composition (gender, age, marital status) and in the urbanicity of place of residence (13).

All the FUSs applied a random sampling procedure. The first step was to draw a sample of private households (addresses) from post-office registers. The number of households selected in each municipality was determined by its population. The selected households were sent a letter of introduction. Shortly afterwards, they were contacted by the interviewers. If necessary, interviewers made several calls or visits to a given address at different times of the day and days of the week to make contact. They then interviewed one member of each participating household at home, generally the head of household. They also left behind extensive written questionnaires for each household member aged 6 years or over, returning to collect these later. At addresses with multiple households, up to three families were interviewed. Respondents received no remuneration, but only a token of appreciation at the end of the interview.

Measures

Service utilization. Service use (the dependent variable) was determined by the question 'In the past 24 months, have you been to any of the following organizations for problems of your own or of any of your household members?' The list of organizations included CMHC and CSW services. The question was posed to all household members aged 16 and older, and we have dichotomized it here into 0 (no use) and 1 (use by at least one household member).

Household characteristics. The household characteristics were as follows:

- *Household composition* involves five categories of households, listed in Table 1.
- *Household income* refers to the net income of the primary breadwinner and his or her partner (if any), excluding child benefit or any income from working children. To achieve a measure that was comparable over time, we recoded the variable into four ordinal categories, from low to high.

Table 1. Determinants of the utilization of community mental health care (CMHC) and community social work (CSW) among 28 264 and 28 274 households, respectively. Results of multiple logistic regression analyses, adjusted odds ratios (OR) and 95% confidence intervals (CI), 1979–1995

	CMHC† (adjusted OR, 95% CI*)	CSW‡ (adjusted OR, 95% CI*)
Household composition		
Two partners living with child(ren)	**1.25 (1.16–1.36)**	**1.09 (1.00–1.19)**
Two partners living without child(ren)	**0.61 (0.55–0.68)**	**0.65 (0.58–0.73)**
One person living with child(ren) without partner	**2.48 (1.99–3.09)**	**3.06 (2.46–3.79)**
One person living alone	0.97 (0.83–1.13)	1.10 (0.93–1.30)
Other household composition	1.29 (0.86–1.93)	**2.04 (1.42–2.93)**
Household income		
Lowest category	**1.28 (1.13–1.45)**	**1.63 (1.44–1.84)**
Second category	1.09 (0.96–1.24)	0.95 (0.82–1.09)
Third category	1.07 (0.94–1.21)	0.97 (0.84–1.12)
Missing	**0.74 (0.65–0.85)**	**0.78 (0.68–0.91)**
Highest category	0.87 (0.75–1.02)	**0.75 (0.63–0.89)**
Social position		
Employed	**1.11 (1.00–1.22)**	1.02 (0.93–1.12)
Student	1.17 (0.80–1.71)	**0.51 (0.32–0.82)**
Retired	**0.42 (0.29–0.60)**	**0.75 (0.59–0.94)**
Benefit-dependent	**1.88 (1.52–2.33)**	**1.77 (1.47–2.13)**
Housewife/househusband	1.06 (0.79–1.43)	0.91 (0.69–1.18)
Employed and housewife/househusband	**0.85 (0.76–0.95)**	**0.84 (0.75–0.95)**
Other social position	**1.45 (1.23–1.71)**	**1.60 (1.38–1.87)**
Education§		
Lowest level	**0.72 (0.62–0.83)**	1.05 (0.92–1.20)
Second level	0.97 (0.87–1.08)	**1.16 (1.03–1.29)**
Third level	1.14 (1.00–1.31)	0.98 (0.84–1.14)
Heterogamy: partner > breadwinner	**1.26 (1.08–1.46)**	1.11 (0.93–1.32)
Heterogamy: breadwinner > partner	1.01 (0.91–1.13)	1.05 (0.93–1.19)
Highest level	1.17 (1.00–1.37)	**0.54 (0.43–0.68)**
Religious identification		
Yes	**0.90 (0.87–0.94)**	1.01 (0.96–1.07)
No	**1.13 (1.04–1.23)**	0.93 (0.84–1.02)
Heterogamy	**1.37 (1.16–1.61)**	1.16 (0.94–1.44)
Urbanicity of residence (rural–urban)	**1.12 (1.06–1.17)**	0.99 (0.95–1.04)
Year		
1979	**0.79 (0.70–0.89)**	**0.51 (0.44–0.60)**
1983	1.12 (1.00–1.25)	**0.65 (0.55–0.76)**
1987	0.91 (0.80–1.04)	**1.50 (1.34–1.67)**
1991	1.10 (0.98–1.25)	**1.45 (1.29–1.64)**
1995	**1.16 (1.04–1.29)**	**1.45 (1.30–1.62)**
Intercept (average household)	0.04 (0.04–0.04)¶	0.03 (0.03–0.03)¶

The reference category is the average household in terms of all household characteristics and study year (the weighted average household of the pooled dataset). The intercept represents the odds ratio for the weighted average household. Interaction terms are not presented in this table, but are available on request. Odds ratios significantly different from 1.00 ($\alpha = 0.05$, two-tailed) are shown in bold.

* Controlled for the influence of all variables in the table as well as interaction terms.

† CMHC utilized compared with no CMHC services utilized.

‡ CSW utilized compared with no CSW services utilized.

§ Highest level attained. Lowest level is primary education; second level is lower secondary vocational education, middle-level secondary education or middle-level vocational education; third level is higher secondary education or pre-university secondary education; highest level is higher professional education or university.

¶ Odds ratios (intercept) significantly different from 0.00 ($\alpha = 0.05$, two-tailed).

Missing answers were relatively frequent (21%). To avoid a serious reduction of the effective sample size, we treated these missing data as a separate category in the analyses.

- *Social position* breaks down into seven categories of households on the basis of the principal daily activities of the primary breadwinner and any partner, as listed in Table 1.
- *Education* refers to the highest educational attainment of the primary breadwinner (and partner, if any). We used categories ranging from primary school to higher professional or university education (see Table 1). Couples whose education levels differed more than one point on this four-point scale were defined as heterogamous couples (37%).
- *Religious identification* was determined by the question 'What church or what religious group do you feel part of?' and dichotomized in terms of identifying with (1) or not identifying with (0) a religious group. Couples who differed were classified as heterogamous (9%).

- *Urbanicity of residence* was differentiated into five categories, ascending from rural (1) to highly urbanized (5).

Statistical analysis

We performed separate analyses for each of the two types of services, CMHC and CSW, comparing the households that used the service with those that did not.

1) We first constructed contingency tables to determine the percentages of households using the respective services in each of the 5 years under study (research aim 1) and then calculated whether these differed from the overall mean percentages of households using the services over the entire period 1979–1995.

2) We then performed stepwise multiple logistic regression analyses on the entire period 1979–1995 to explore changes in service use by specific household categories over time – that is, whether the odds of using a service changed for particular household categories during the study period. In the first step we included all household characteristics (i.e. composition, income, social position, education, religious identification and urbanicity) and dummy variables for study year. In the second step, we added interaction terms between all household characteristics and the study years 1983 onwards, using forward selection to identify any interactions that were significantly associated with service use. The reference group was the weighted average household of the pooled dataset.

3) We then constructed contingency tables to document any changes in the relative sizes of household categories in the period.

4) Finally, we used a purging technique (14–17) to determine whether two specific processes could explain overall trends in service use in 1979–1995: (a) changes in the relative service use by particular household categories and/or (b) changes in their relative sizes in the sample (research aim 2). To assess the impact of each process, we performed two simulations using multiple logistic regression analyses, one by holding odds ratios (ORs) between household characteristics and service use constant at the 1979 level, and the other by holding the distribution of households constant at that level. The purging technique produced simulated trends. If a simulated trend were to lie outside the 95% confidence interval (CI) around the observed trend, that would provide statistical confirmation that the process under investigation indeed affected the service use trends in the randomly sampled population. A more detailed explanation of the purging method is available on request.

Results

Trends in the use of community care services

Figure 1 shows the general increase in CMHC and CSW utilization over time. In 1979, 3.4% of all households had used CMHC in the previous 2 years, and the figure had mounted to 5.7% by 1995. The trend was significant over the period 1979–1983, in particular. The use of CSW significantly mounted until the mid-1980s, from 2.0% in 1979 to 5.5% in 1987, but it subsequently remained stable at around 5.6%.

Changes in service utilization rates and relative sizes of household categories in 1979–1995

Couples living with children, one-parent families, households in the lowest income category, employed households, benefit-dependent households, non-religiously identified households and households living in highly urbanized areas were more likely to use CMHC in 1979–1995 than the average household (see Table 1). Some fluctuations in the relative use of CMHC occurred for particular household categories in the course of 1979–1995. For example, the effect of employment was significantly elevated in 1987: employed households were roughly 1.5 times more likely than the average household to use CMHC that year, compared to about 1.1 times in other years. The effect of urbanicity was higher that year too (OR = 1.26 vs. OR = 1.12 in other years), whereas the effect of benefit-dependency was lower (OR = 1.22 vs. OR = 1.88). In 1991, the lowest-income households had reduced odds of using CMHC, although they were more likely to use it in other years (OR = 0.92 vs. OR = 1.28).

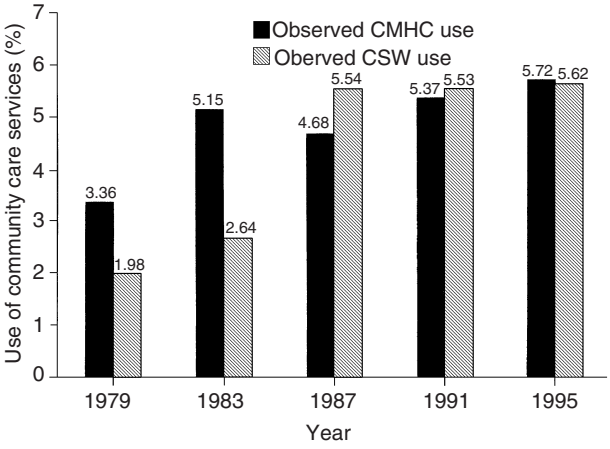

Fig. 1. Observed use of CMHC and CSW, 1979–1995.

Comparing these results with those of CSW, one can see a good deal of congruence. Couples living with children, as well as one-parent, low-income and benefit-dependent households, were significantly more likely than the average household to have used CSW, while the household characteristics education, religious identification and urbanicity showed contrasting or no effects on the use of CSW. Less-educated households, for example, had greater odds of using CSW, but lower odds of using CMHC (Table 1). Significant fluctuations for particular categories also occurred for CSW during the period studied, but only in 1983. For example, religiously identified households, as well as households in the next-to-highest income category, had higher odds of using CSW than in other years (OR = 1.23 vs. OR = 1.01; OR = 1.65 vs. OR = 0.97).

Table 2. Changes in the relative sizes of household categories in a sample of 12 112 households. Results from contingency tables, column percentages, 1979 and 1995*

	1979 (n = 6097)	1995 (n = 6015)
Household composition		
Two partners living with child(ren)	51.9	39.4
Two partners living without child(ren)	27.3	31.6
One person living with child(ren) without partner	5.6	4.4
One person living alone	12.9	23.2
Other household composition	2.3	1.4
Household income		
Lowest category	24.3	27.5
Second category	19.8	17.9
Third category	18.2	20.1
Missing	24.6	13.8
Highest category	13.1	20.7
Social position		
(both) Employed	24.9	43.7
(both) Student	0.9	2.0
(both) Retired	6.8	9.6
(both) Benefit-dependent	2.3	8.7
(both) Housewife/househusband	6.0	3.0
Employed and housewife/househusband	50.5	19.6
Other social position	8.5	13.4
Education†		
Lowest level	24.9	14.9
Second level	20.0	19.1
Third level	8.2	15.4
Heterogamy: partner > breadwinner	10.9	14.0
Heterogamy: breadwinner > partner	30.3	23.2
Highest level	5.6	13.4
Religious identification		
Yes	68.9	59.0
No	23.2	31.4
Heterogamy	7.9	9.6
Urbanicity of residence (1, rural; 5, urban)‡	3.1	3.0

* First-column percentages indicate, for example, that 5.6% of the sample in 1979 consisted of one-parent households. Column percentages do not add up to 100%.
† Highest level attained. Lowest level is primary education; second level is lower secondary vocational education, middle-level secondary education or middle-level vocational education; third level is higher secondary education or pre-university secondary education; highest level is higher professional education or university.
‡ Differences expressed in means. The scale of measurement is given in brackets (1–5).

Some substantial shifts occurred over time in the relative sizes of particular household categories in the sample (see Table 2). Among the household categories that grew relatively larger were the one-person, benefit-dependent, better-educated and non-religiously identified households. Household categories that shrank in relative size in the sample included couples living with children and couples in which one member worked and the other kept house.

Can overall trends in the use of community care services be attributed to changes in the service utilization rates of particular household categories?

Figure 2 shows observed and simulated trends in CMHC utilization in 1979–1995. As demonstrated above, some fluctuations did occur in the relative service use of particular household categories during the period (that is, certain categories had significantly different odds of using services in some years than in others). When we held the associations between the appropriate household characteristics and CMHC use constant for the study years in question (replacing the effects of the household characteristics 'social position' and 'urbanicity' in 1987 with their respective main effects over the other study years, and making a similar substitution for 'income' in 1991), the purged overall percentages of households using CMHC services in these years did not differ significantly from the actually observed percentages. To take the year 1987 as an example, when the associations of CMHC use with social position and with urbanicity were held constant for that year, the purged overall percentage of households using CMHC that year came to 4.4%, rather close to and within the 95% CIs around the observed 4.7% (Fig. 2). This implies that even if the fluctuations in CMHC use on the part of employed, student,

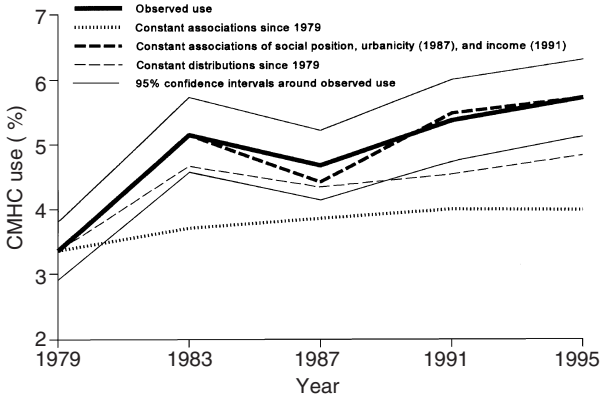

Fig. 2. Observed and simulated trends in CMHC, 1979–1995.

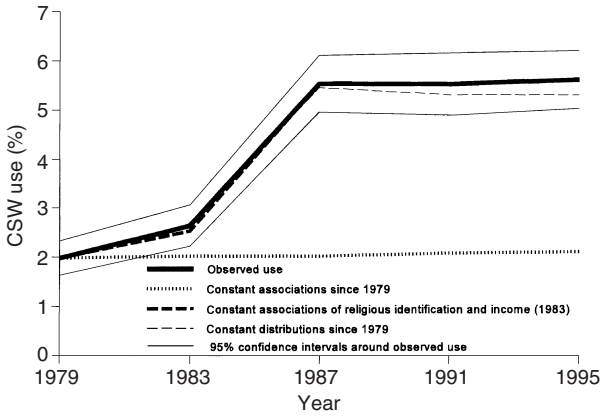

Fig. 3. Observed and simulated trends in CSW, 1979–1995.

benefit-dependent and urban households had not occurred in 1987, the use of CMHC in that year would have remained practically the same as what was observed.

For CSW we have noted significant fluctuations in relative service use for religiously and non-religiously identified households and for next-to-highest-income households in the 1983 study. After the associations between the appropriate household characteristics and CSW use were held constant for that year, the purged percentage of households using CSW services differed only slightly from the observed percentage (Fig. 3: 2.5% vs. 2.6%).

These results imply that, contrary to our expectations, the growing use of CMHC and CSW services from 1979 to 1995 is not explained by changes in service use by particular household categories.

Can overall trends in the use of community care services be attributed to changes in the relative sizes (percentages in the sample) of particular household categories?

As shown in Table 2, some considerable shifts occurred over time in the relative sizes of one-person, benefit-dependent, better-educated and non-religiously identified households. As some of these were anticipated to have higher-than-average prevalence rates of service use, their growth in size could have affected the overall trends. If we simulate constant distributions of *all* households since 1979 (replacing the sample composition in 1983–1995 with the sample composition from 1979), the purged overall percentages of households using CMHC services in the period 1983–1987 still remain within the 95% CIs around the actually observed percentages (Fig. 2), thus implying no significant effect of relative size. In 1991–1995, the purged overall percentages do come out significantly lower than the observed percentages, thus suggesting some effect of relative size during this period. However, its contribution towards explaining the *long-term* upward trend in CMHC service use is marginal, as the greatest increases in CMHC use occurred before 1991.

For CSW, the purged percentages of households using these services from 1983 onwards remained within the 95% CIs around the actually observed percentages, thus indicating no significant effect of relative size (Fig. 3).

The general increase in the use of community care services from 1979 to 1995 is therefore not explained by an increasing relative use of services by particular household categories, nor to any meaningful extent by changes in the relative sizes of such categories. Nonetheless, the public at large clearly made growing use of such services over time. That can be seen in the increased effects of the year of study on both types of care since 1979 (Table 1). It is also reflected in the simulated trends in CMHC and CSW use after control for associations with all household characteristics and study year since 1979 (Figs 2 and 3).

Discussion

The principal aim of this paper was to explore determinants of trends in the use of Dutch CMHC and CSW services in recent decades. We focused on two possible explanations for these trends: changes in service utilization rates of particular household categories and changes in their relative sizes in the sample over time. To test our hypotheses, we made use of large-scale population studies which had been conducted every 4 years since 1979 and which were representative of the Dutch population.

Trends in the use of community care services

The overall utilization rates for CMHC and CSW services virtually doubled for Dutch households during the years 1979–1995, with a particularly steep rise in the first half of the 1980s. In absolute terms, service use grew even more sharply, as a result of a substantial increase in the total number of households in the Netherlands in that period. By 1995, 5.7% of the households had used CMHC in the previous 2 years and 5.6% had used CSW.

Trends in service use cannot be attributed to changes in either the utilization rates or the relative sizes of particular categories of households

Some fluctuations in the service use of particular categories since 1979 were indeed found, but they were not very large, nor were they consistent over the

years. For CSW, for example, such fluctuations appeared only for 1983. Upon analysis, none of these changes could explain the upward trends in the use of either CSW or CMHC. Recent research in client registries by Pijl et al. (18) has also found that although Dutch mental health services did lower their access thresholds during the 1990s by implementing community care for chronic psychiatric patients, they did not attract new groups of clients.

With reference to our second potential explanation, some major changes in the relative sizes of particular household categories did occur over time. These included proportional increases in better-educated, benefit-dependent and non-religiously identified households, as well as proportional decreases in households where one member worked and the other kept house. Upon analysis, however, these categories proved either to be relatively small in size or not to have strongly elevated or reduced odds of service use. Consequently, the observed changes in the relative sizes of particular household categories in the sample did not help to explain the sharply increasing use of community care services during the 1980s. In the period 1991–1995, when service use rose only slightly, the changes in relative size did play a minor role in explaining increases, but only for CMHC.

Strengths and limitations

A major strength of the present study is its long-term perspective. Large samples of households, representative of the population, were studied using similar methods. Some potential limitations may be noted. First, there was considerable non-response in all surveys, although the samples still remained representative of the population at the household level. Response rates varied between surveys, but they showed no association with any of the trends found in service use or help-seeking patterns. It therefore seems unlikely that non-response has compromised the results of the present study.

Second, recall problems could have affected household members' estimations of their service use in the preceding 2 years, although it is difficult to gauge what effect that might have had on our results. Conceivably, people might underreport service use for mild mental problems, in which case the trends we identify here would be underestimations of the actual situation.

Third, no data is available on the use of other Dutch community care services than regional CMHC institutes and CSW agencies. These two types of provision are outstanding examples of secondary and primary community care services. Partly for this reason, we believe our results are generalizable to other such services.

The organizational structure of mental health care underwent considerable changes during the time span covered by the study, but the process of deinstitutionalization in the Netherlands was very limited and gradual. Although this may have generated some increased use of CMHC, the number of patients involved was presumably very small and cannot explain the trends described.

Conclusions

Notwithstanding these potential limitations, we conclude that none of the household categories studied here showed any substantial and consistent changes in their *relative* likelihood of using community care services during the 1979–1995 period. Although some major shifts did occur in the relative sizes of particular household categories in the sample (partly attributable to increased education and secularization), these had no meaningful effects on the overall trends in service utilization. The strong overall increase in both types of service use during the period in question appears to be explained overwhelmingly by general changes in the help-seeking behaviour of all categories of households. In other words, the public at large has increasingly turned to community care services, especially social work, in recent decades.

Although the existing inequalities in service use between different categories of households do not appear to have widened, they have not diminished either. Our finding that the overall rate of service use was not influenced by factors relating to particular categories of households may open opportunities for policymakers to narrow the persisting inequalities in service use.

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